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D2

ORDER DATABASE

```
create database orderdb;
```

```
use orderdb;
```

```
create table salesman (  
    salesman_id int(4),  
    name varchar (20),  
    city varchar (20),  
    commission varchar (20),  
    primary key (salesman_id)
```

```
);
```

```
desc salesman;
```

```
create table customer1 (  
    customer_id int(4),  
    cust_name varchar (20),  
    city varchar (20),  
    grade int (3),  
    salesman_id int(4),  
    primary key (customer_id),  
    foreign key (salesman_id) references salesman(salesman_id) on delete set null
```

```
);
```

```
desc customer1;
```

```
create table orders (  
    ord_no int (5),  
    purchase_amt int (10),
```

```

ord_date date,

customer_id int(4),

salesman_id int(4),

primary key (ord_no),

foreign key (customer_id) references customer1 (customer_id) on delete cascade,

foreign key (salesman_id) references salesman (salesman_id) on delete cascade

);

desc orders;

insert into salesman values (1000, 'john','bangalore','25 %');

insert into salesman values (2000, 'ravi','bangalore','20 %');

insert into salesman values (3000, 'kumar','mysore','15 %');

insert into salesman values (4000, 'smith','delhi','30 %');

insert into salesman values (5000, 'harsha','hydrabad','15 %');

select * from salesman;

```

The screenshot displays the MySQL Workbench interface. The top toolbar includes icons for file operations, database management, and query execution. The left sidebar contains a 'MANAGEMENT' section with links to Server Status, Client Connections, Users and Privileges, Status and System Variables, Data Export, and Data Import/Restore. Below this is the 'INSTANCE' section with links to Startup / Shutdown, Server Logs, and Options File. The 'PERFORMANCE' section includes links to Dashboard, Performance Reports, and Performance Schema Setup. The main window shows a SQL script with the following queries:

```

33 insert into salesman values (1000, 'john','bangalore','25 %');
34 insert into salesman values (2000, 'ravi','bangalore','20 %');
35 insert into salesman values (3000, 'kumar','mysore','15 %');
36 insert into salesman values (4000, 'smith','delhi','30 %');
37 insert into salesman values (5000, 'harsha','hydrabad','15 %');
38 select * from salesman;
39 insert into customer1 values (10, 'sachin','bangalore', 100, 1000);

```

The 'Result Grid' shows the output of the 'select * from salesman' query, displaying a table with columns: salesman_id, name, city, and commission. The data rows are:

| salesman_id | name | city | commission |
|-------------|--------|-----------|------------|
| 1000 | john | bangalore | 25 % |
| 2000 | ravi | bangalore | 20 % |
| 3000 | kumar | mysore | 15 % |
| 4000 | smith | delhi | 30 % |
| 5000 | harsha | hydrabad | 15 % |

The 'Output' pane at the bottom shows the execution log, including the time taken for each query and the number of rows affected. The log entries are:

| # | Time | Action | Message | Duration / Fetch |
|----|----------|--|--|-----------------------|
| 4 | 12:42:34 | desc salesman | 4 row(s) returned | 0.000 sec / 0.000 sec |
| 5 | 12:42:34 | create table customer1 (customer_id int(4), cust_name varchar(20), city varchar(20), grade int(3), sales | 0 row(s) affected, 3 warning(s): 1601 Integer display width is deprecated and will be removed in a future release. | 0.031 sec |
| 6 | 12:42:34 | desc customer1 | 5 row(s) returned | 0.000 sec / 0.000 sec |
| 7 | 12:42:34 | create table orders (ord_no int(5), purchase_amt int(10), ord_date date, customer_id int(4), salesman_id int(4)) | 0 row(s) affected, 4 warning(s): 1601 Integer display width is deprecated and will be removed in a future release. | 0.016 sec |
| 8 | 12:42:34 | desc orders | 5 row(s) returned | 0.000 sec / 0.000 sec |
| 9 | 12:42:34 | insert into salesman values (1000, 'john','bangalore','25 %') | 1 row(s) affected | 0.000 sec |
| 10 | 12:42:34 | insert into salesman values (2000, 'ravi','bangalore','20 %') | 1 row(s) affected | 0.000 sec |
| 11 | 12:42:34 | insert into salesman values (3000, 'kumar','mysore','15 %') | 1 row(s) affected | 0.000 sec |
| 12 | 12:42:34 | insert into salesman values (4000, 'smith','delhi','30 %') | 1 row(s) affected | 0.000 sec |
| 13 | 12:42:34 | insert into salesman values (5000, 'harsha','hydrabad','15 %') | 1 row(s) affected | 0.000 sec |
| 14 | 12:42:34 | select * from salesman LIMIT 0, 1000 | 5 row(s) returned | 0.000 sec / 0.000 sec |

```

insert into customer1 values (10, 'preethi','bangalore', 100, 1000);
insert into customer1 values (11,'vivek','mangalore', 300, 1000);
insert into customer1 values (12, 'bhaskar','chennai', 400, 2000);
insert into customer1 values (13, 'chethan','bangalore', 200, 2000);
insert into customer1 values (14, 'mamatha','bangalore', 400, 3000);
select * from customer1;

```

•

| customer_id | cust_name | city | grade | salesman_id |
|-------------|-----------|-----------|-------|-------------|
| 10 | preethi | bangalore | 100 | 1000 |
| 11 | vivek | mangalore | 300 | 1000 |
| 12 | bhaskar | chennai | 400 | 2000 |
| 13 | chethan | bangalore | 200 | 2000 |
| 14 | mamatha | bangalore | 400 | 3000 |
| NULL | NULL | NULL | NULL | NULL |

```

insert into orders values (50, 5000, '04-06-17', 10, 1000);
insert into orders values (51, 450, '20-01-17', 10, 2000);
insert into orders values (52, 1000, '24-02-17', 13, 2000);
insert into orders values (53, 3500, '13-04-17', 14, 3000);
insert into orders values (54, 550, '09-03-17', 12, 2000);
select * from orders;

```

| ord_no | purchase_amt | ord_date | customer_id | salesman_id |
|--------|--------------|------------|-------------|-------------|
| 50 | 5000 | 2004-06-17 | 10 | 1000 |
| 51 | 450 | 2020-01-17 | 10 | 2000 |
| 52 | 1000 | 2024-02-17 | 13 | 2000 |
| 53 | 3500 | 2013-04-17 | 14 | 3000 |
| 54 | 550 | 2009-03-17 | 12 | 2000 |
| NULL | NULL | NULL | NULL | NULL |

-- Query 1

```
select grade, count(distinct customer_id)
from customer1
group by grade
having grade > (select avg(grade)
from customer1
where city='bangalore'
);
```

| | grade | count(distinct customer_id) |
|---|-------|-----------------------------|
| ▶ | 300 | 1 |
| | 400 | 2 |

-- Query 2

```
select
salesman_id,
name
from salesman a
where 1 < (select count(*)
from customer1
```

```

where
salesman_id=a.salesman_id
);

```

| salesman_id | name |
|-------------|------|
| 2000 | ravi |
| NULL | NULL |

-- Query 3

```

select salesman.salesman_id, name, cust_name, commission
from salesman, customer1
where salesman.city = customer1.city
union
select salesman_id, name, 'no match', commission
from salesman
where not city = any
(select city
from customer1)
order by 2 desc;

```

| salesman_id | name | cust_name | commission |
|-------------|--------|-----------|------------|
| 4000 | smith | no match | 30 % |
| 2000 | ravi | preethi | 20 % |
| 2000 | ravi | chethan | 20 % |
| 2000 | ravi | mamatha | 20 % |
| 3000 | kumar | no match | 15 % |
| 1000 | john | preethi | 25 % |
| 1000 | john | chethan | 25 % |
| 1000 | john | mamatha | 25 % |
| 5000 | harsha | no match | 15 % |

-- Query 4

create view highsalesman as

select b.ord_date, a.salesman_id, a.name

from salesman a, orders b

where a.salesman_id = b.salesman_id

and b.purchase_amt=(select max(purchase_amt)

from orders c

where c.ord_date = b.ord_date

);

select * from highsalesman;

| ord_date | salesman_id | name |
|------------|-------------|-------|
| 2004-06-17 | 1000 | john |
| 2020-01-17 | 2000 | ravi |
| 2024-02-17 | 2000 | ravi |
| 2013-04-17 | 3000 | kumar |
| 2009-03-17 | 2000 | ravi |

-- Query 5

delete from salesman

where salesman_id=1000;

select * from salesman;

| salesman_id | name | city | commission |
|-------------|--------|-----------|------------|
| 2000 | ravi | bangalore | 20 % |
| 3000 | kumar | mysore | 15 % |
| 4000 | smith | delhi | 30 % |
| 5000 | harsha | hydrabad | 15 % |
| NULL | NULL | NULL | NULL |

select * from orders;

| ord_no | purchase_amt | ord_date | customer_id | salesman_id |
|--------|--------------|------------|-------------|-------------|
| 51 | 450 | 2020-01-17 | 10 | 2000 |
| 52 | 1000 | 2024-02-17 | 13 | 2000 |
| 53 | 3500 | 2013-04-17 | 14 | 3000 |
| 54 | 550 | 2009-03-17 | 12 | 2000 |
| NULL | NULL | NULL | NULL | NULL |